Foreign Agricultural Service
GAIN Report
Global Agriculture Information Network

Required Report - public distribution

Date: 1/31/2002

GAIN Report #UK1043

United Kingdom

Solid Wood Products

Annual

2001

Approved by:
Peter O. Kurz
U.S. Embassy
Prepared by:
Contractor/Deanna Ayala/Phil Bicknell

Report Highlights:
Despite challenging trading conditions, U.S. hardwood sawn lumber imports into the UK held up reasonable well during 2001, falling only slightly from around 115,000 cubic meters to a projected 110,000 cubic meters. Unfavorable exchange rates and relatively high prices for U.S. plywood mean that UK umports have continued at only low levels this year. The UK's imports of value added wood products continued to rise during 2001 and the U.S. is benefitting from this trend. UK imports of 'builders carpentry and joinery' from the U.S. increased again during 2001.

Includes PSD changes: Yes
Includes Trade Matrix: Yes
Annual Report
London [UK1], UK

Table of Contents

Executive Summary

As plantations established in the second half of the twentieth century have matured, log harvests in the UK have increased nearly three-fold over the last 30 years, rising from 3.69 million m3 in 1970 to 10.43 million m3 in 2000. This rising trend should continue for the next 20 years, with log production forecast to increase to 16.48 million m3 by 2017. The expansion in production is entirely focused on softwoods. Much effort is being expended by the domestic sector on raising the quality of British grown softwoods, for example through improved silvicultural, drying and treatment techniques. UK softwoods can now be applied to nearly all construction applications, with the exception of trusses. In 2000, the UK sawmilling sector cut 3.94 million m3 of logs to produce 2.16 million m3 of sawn lumber.

The pace of growth in the UK domestic panel products sector slowed considerably during 2001 as the market has reached saturation point. Domestic capacity is now sufficient to meet existing UK market demand for medium density fiberboard (MDF), particleboard/chipboard and orientated strand board (OSB). Plywood remains the only panel product imported in any volume. Overall imports of plywood into the UK continued at high levels in 2001 reaching around 1.3 million m3 compared to 1.2 million m3 in 2000. There has been particularly strong growth in UK imports of Brazilian elliotti pine plywood. Unfavorable exchange rates and relatively high prices for U.S. plywood mean that UK imports have continued only at low levels this year.

The strength of the dollar relative to sterling and high freight costs have meant that U.S. sawn softwood lumber has been generally uncompetitive on price in the UK market. Use of U.S. softwoods in the UK is now concentrated in high value niche markets, including better quality doors, windows and decks. UK imports of U.S. softwood lumber rose from around 44,000 m3 to 52,000 m3 between 1999 and 2000, but are projected to have fallen away slightly to 48,000 m3 in 2001.

British hardwood timber supply is very restricted and no increase is expected in the foreseeable future. Overall hardwood sawn lumber imports into the UK are expected to fall from around 443,000 m3 in 2000 to 421,000 m3 in 2001. Temperate hardwood sawn lumber imports should remain static at around 245,000 m3 in 2001. Despite challenging trading conditions, U.S. hardwood sawn lumber imports into the UK held up reasonably well during 2001, falling only slightly from around 115,000 m3 to a projected 110,000 m3. UK imports of tropical sawn lumber declined significantly during 2001, hit by over-stocking.

The UK's imports of value added wood products continued to rise during 2001. The U.S. is benefitting from this trend. UK imports of "builders carpentry and joinery" from the U.S. increased again during 2001. However other countries are seeing stronger growth, notably Euro-zone countries like Italy and Belgium, Eastern European countries, and Asian countries including China and Indonesia.

U.S. competitors' marketing in the UK continued to be dominated during 2001 by the £9 million "Wood for Good" promotional campaign funded primarily by Nordic and UK interests, and by the Nordic Timber Council's £1.4 million Nordic First campaign.
Overall activity in the UK construction sector has continued to rise steadily since the start of 1999, a

trend which is expected to continue. Repair and maintenance is expected to make the major contribution to the industry's work load. Housing starts have been less consistent, falling between 1997 and 2000, and stabilizing in 2001. Longer term projections suggest a steady rise over the next 3 years. Public investment in infra-structure is also rising, boosting construction in the health, education, social housing and transport sectors. There are encouraging signs for wood in construction. New regulations to improve building quality and energy efficiency have increased demand for timber frame construction and wooden window frames. Current fashion also favors wooden flooring and decking. There is a significant trend towards pre-fabrication. Interest in engineered wood products is growing.

Demand for furniture in the UK was slow in the spring and the fall, but strong during the summer sales and in the run-up to Christmas. UK manufacturers, particularly of lower quality furniture, continue to lose market share to overseas competitors, notably in low cost countries in Asia and Eastern Europe. The drive to cut costs and improve efficiency has led to an on-going trend towards increased out-sourcing of components by UK furniture manufacturers.

Exchange Rates:

Please note that the exchange rates used throughout this report are as follows:

£1 = $ 1.445
$1 = 1.158 Euro

Strategic Indicators

Strategic Indicator Table:	Forest Area (million hectares/million m3)		
Country:	United Kingdom		
Report Year	2001		
	Previous	Current	Following
	Calendar Year	Calendar Year	Calendar Year
Total land area	24.29	24.29	24.29
Total forest area (productive and unproductive)	2.79	2.79	2.79
...of conifer high forest (productive and unproductive)	1.65	1.65	1.65
...of broadleaves (productive and unproductive)	1.14	1.14	1.14
...of coppice (productive)	0.02	0.02	0.02
Forest type			
...of which virgin	0	0	0
...of which plantation	N/A	N/A	N/A
...of which other commercial	N/A	N/A	N/A
Forest ownership			
...totally publically owned	0.86	0.86	0.86
...totally privately owned	1.93	1.93	1.93
Total volume of standing timber	317	321	325
...of which commercial	293	296	299
Annual Timber Removal	10.43	11	11.5
Annual Timber Growth Rate	14.59	14.59	14.59
Annual Allowable Cut	N/A	N/A	N/A
Strategic Indicator Table:	Construction market		
Country:	United Kingdom		
Report Year	2001		
	Previous	Current	Following
	Calendar Year	Calendar Year	Calendar Year
Total Housing starts (000s of units)	177.4	177.1	179.1
...Of which wood frame	17	18	19
...Of which steel, masonry other materials	160.4	159.1	160.1
...Of total starts, residential	177.4	177.1	179.1
....Of residential, single family	N/A	N/A	N/A
....Of residential, multi family	N/A	N/A	N/A

...Of total starts, commercial	N/A	N/A	N/A
Total Value of Commercial Construction market (US$ million)	18000	18900	18950
Total Value of Repair and Remodeling Market (US$ million)	45440	49200	51000
Are tariffs on softwood from the United States higher, equal, or lower than softwood imported from other countries?	equal	equal	equal
Are tariffs on plywood from the United States higher, equal, or lower than plywood imported from other countries?	higher	higher	higher
Are non-tariff barriers on softwood from the United States higher, equal, or lower than softwood imported from other countries?	higher	higher	higher
Are non-tariff barriers on plywood from the United States higher, equal, or lower than plywood imported from other countries?	N/A	N/A	N/A
Are there market development programs for construction, softwood or plywood imports funded by foreign governments?	N/A	N/A	N/A
Remaining questions	All N/A	All N/A	All N/A
Strategic Indicator Table:	Furniture and Interiors Market		
Country:	United Kingdom		
Report Year	2001		
	Previous	Current	Following
	Calendar Year	Calendar Year	Calendar Year
Total Housing starts (000s of units)	177.4	177.1	179.1
Total Number of Households (thousands England only)	20850	21000	21150
Furniture production (US$ million)	N/A	N/A	N/A
Interiors market size (US$ million)	N/A	N/A	N/A
Total furniture imports (US$ million) (wood furniture only)	1786	2036	2250
Total furniture exports (US$ million) (wood furniture only)	621	635	635
Are tariffs on hardwood from the United States higher, equal, or lower than hardwood imported from other countries?	equal	equal	equal

Are non-tariff barriers on hardwood from the United States higher, equal, or lower than hardwood imported from other countries?	higher	higher	higher
Are there market development programs for furniture or interiors market expansion funded by foreign governments?	Yes	Yes	Yes
If yes, identify the following:			
...Country	Malaysia	Malaysia	Malaysia
...Form of competition	Trade shows, 3 permanent market representatives (London)		
Remaining questions	All N/A	All N/A	All N/A
Strategic Indicator Table:	Material Handling Market		
Country:	United Kingdom		
Report Year	2001		
	Previous	Current	Following
	Calendar Year	Calendar Year	Calendar Year
Total Value of Industrial Output ($US million)	N/A	N/A	N/A
New pallet production (million units)	N/A	N/A	N/A
Are consumer preferences for solid wood pallets and packaging materials vis-à-vis non wood materials high, medium or low?	medium	medium	medium
Are industry/trade preferences for repaired/recycled pallets over new pallets low, medium, or high?	N/A	N/A	N/A
From posts experience, is the willingness of U.S. suppliers to deliver product per importers specifications low, medium or high	medium	medium	medium
Identify leading source (s) of price quotes	N/A	N/A	N/A
Are there market development programs for the materials handling market expansion funded by foreign governments?	unknown	unknown	unknown
Remaining questions	All N/A	All N/A	All N/A

1. UK Domestic Production

1.1 UK Forests

Structure

In November 2001, the UK Forestry Commission published the results of the National Inventory of Woodland and Trees (NIWT), conducted from 1995 through 1999, across Great Britain (i.e. excluding Northern Ireland). The inventory indicates that the total area of woodland in Great Britain is now an estimated 2.7 million hectares and that woodland covers nearly 12 percent of Great Britain. Woodland area amounts to 8 percent of England, 14 percent of Wales and 17 percent of Scotland. The total area of woodland throughout the United Kingdom (i.e. including Northern Ireland) now stands at 2.75 million hectares, 11.3 percent of land area.

In theory all forests may be regarded as "productive" as there are no forest areas where felling is legally prohibited or entirely ruled out for technical or environmental reasons. In practice, at least 11 percent of woodlands (250,000 hectares) are either under some form of statutory protection severely restricting timber harvesting options, or are unmanaged or managed chiefly for amenity or recreation.

Table 1: Area of woodland and proportion of total area covered by woodland in the UK (Thousands of hectares)

	UK		England		Scotland		Wales		N. Ireland	
Year	Area	percent	Area	percent	Area	percent	Area	percent	Area	percent
1905	1140	4.7	681	5.2	351	4.5	88	4.2	20	1.5
1924	1212	5	660	5.1	435	5.6	103	5	<14	<1
1947	1420	5.8	755	5.8	513	6.6	128	6.2	24	1.8
1965	1784	7.3	886	6.8	656	8.4	201	9.7	42	3.1
1980	2175	9	948	7.3	920	11.8	241	11.6	67	4.9
1995-99	2751	11.3	1097	8.4	1282	16.4	287	13.8	81	6
2000	2793	11.5	1103	8.5	1318	16.9	289	13.9	83	6.1
2001	2790	11.5	1100	8.4	1317	16.9	289	13.9	83	6.1
Total land area	24291	100	13042	100	7813	100	2078	100	1358	100

Forest area in the UK has increased from around 4.7 percent of land area in 1905 following implementation of a national program to expand domestic wood production after World War I (Table 1). As a result, plantations dominate the UK's productive forest resources. Over half of Britain's forest area has been established since 1945, and 20 percent has been established in the last 20 years. Until recently, most plantations were established with non-native conifer species, particularly Sitka spruce, which are generally more productive and well adapted to UK soils and climate.

Government policy has switched from an emphasis on wood production to broader issues associated with

sustainable forest management and the rate of plantation establishment in the UK has declined. Plantation establishment reached a peak in the mid 1980s, at nearly 30,000 hectares a year, but has declined during the 1990s. The change reflects the removal of tax concessions for new plantation forestry in 1988, together with the introduction of restrictions on the establishment of non-native conifer plantations for environmental reasons. New planting in the UK is now supported through direct grant schemes which, also for environmental reasons, favor broadleaved trees.

Table 2: Area of woodland by ownership and forest type in the UK, as at 31 March 2001
Thousands of hectares

	Conifers	Broadleaves	Total
State owned	774	87	861
Private woodland	886	1043	1929
Total	1660	1130	2790

Table 3: Area of woodland by main tree species in Great Britain
From National Woodland Inventory 1995-1999 - thousands of hectares

Species	GB Total	England	Scotland	Wales
Scots pine	227	82	140	5
Corsican pine	47	41	2	3
Lodgepole pine	135	7	122	6
Sitka spruce	692	80	528	84
Norway spruce	79	32	35	11
European larch	23	14	9	1
Jap/Hybrid larch	111	33	56	22
Douglas fir	45	24	10	11
Other conifer	30	19	5	6
Mixed conifer	18	9	8	0
Total conifers	**1406**	**340**	**916**	**149**
Oak	223	159	21	43
Beech	83	64	10	9
Sycamore	67	49	11	7
Ash	129	105	5	19
Birch	160	70	78	13
Poplar	12	11	0	1
Sweet chestnut	12	12	0	1
Elm	5	4	1	0
Other broadleaves	120	84	18	18
Mixed broadleaves	160	91	62	8

Total broadleaves	**971**	**648**	**206**	**118**
Total - all species	**2377**	**988**	**1123**	**266**

1.66 million hectares of UK forest area comprises conifers (59 percent) and 1.13 million hectares hardwoods (41 percent) (Table 2). The total growing stock of UK forests available for wood supply amounts to 293 million m3 comprising 188 million m3 of coniferous species and 105 million m3 broadleaved species. Net annual increment (NAI) in timber volume amounts to around 14.6 million cubic meters, of which 87 percent is accounted for by conifers. Species data is available only for Great Britain (Table 3) and reveals the importance of Sitka spruce among conifers, and of oak among hardwoods.

Ownership

In 2001, 861000 hectares (30 percent) of UK woodland were in state ownership and 1,929,000 hectares (70 percent) in private ownership. 800,000 hectares of state forests were managed by the state Forest Enterprise in Great Britain and 61,000 hectares by the Forest Service of Northern Ireland. Average holding size of Forest Enterprise forests amounts to 1659 hectares. There are around 106,000 private forest owners in the UK, and the average holding size in the private sector is only 13 hectares.

As there is a larger percentage of post-World War II plantations in the State sector, state forests have been more productive over the last 30 years (Table 4). However, the balance is now changing as more privately owned forests come into production, and as government policy directs that the bulk of new planting should be undertaken by the private sector (Table 5).

Regulation

UK forestry is heavily regulated. With only a few specific exceptions, trees cannot be felled on either public or private land without prior government approval under a management plan or felling licence issued by the Forestry Commission. During 1999, the UK forest authorities published an extensive set of regulatory forestry standards, which are mandatory for most forest operations, designed to ensure forest development in accordance with the Pan-European (formerly "Helsinki") Criteria for sustainability.

United Kingdom Woodland Assurance Scheme (UKWAS)

The United Kingdom's Woodland Assurance (UKWA) Standard, launched in June 1999, was developed following broad based consultation of the UK forestry sector with government authorities, environmental groups and the Forest Stewardship Council (FSC). The UKWA standard is a voluntary forest certification standard designed to be compatible with both the FSC Principles of Good Forest Management and the UK Government's regulatory standard. UKWAS was recognized by the FSC as compatible with their Principles in November 1999. Over the last two years, all 800,000 hectares of Forest Enterprise woodlands have undergone certification to the UKWA standard. Certification was carried out by SGS, an FSC accredited certifier, and wood produced from these woodlands is now being marketed under an FSC label. The Worldwide Fund for Nature claim the certification could bring around six million m3 of FSC-labeled timber products into the UK marketplace.

1.2 UK Solid Wood Production

Wood production

As plantations established in the second half of the twentieth century have matured, log harvests in the UK have increased nearly three-fold over the last 30 years (Table 4), rising from 3.69 million m3 (overbark standing) in 1970 to 10.43 million m3 in 2000. This rising trend should continue for the next 20 years (Table 5), with production forecast to increase to 16.48 million m3 by 2017. The expansion in production is entirely focused on softwoods, much of it of relatively small diameter and mostly of low density and non durable in keeping with the relatively rapid rate of growth. However much effort has been expended by the domestic sector on raising the quality of British grown softwoods, for example through improved silvicultural, drying and treatment techniques. UK softwoods can now be applied to nearly all construction applications, with the exception of trusses.

Hardwood production, which now accounts for less than 10 percent of total UK production, has fallen dramatically over the last 30 years, and is forecast to remain fairly static at around 1 million m3 over the next 20 years. Prospects for significantly increasing hardwood production are very low due to fragmentation of ownership, lack of active management, and increasing environmental controls. With some notable exceptions, hardwood timber quality is generally poor. The financial yield of broadleaved crops is low by comparison with conifers and therefore planting is not favored by the commercial sector.

Table 4 : Great Britain and Northern Ireland Wood Production 1970 to 2000
000 m3 overbark standing

	GB Softwood			GB Hardwood	Northern Ireland	UK Total
Year	Forestry Commission	Private Woodland	Total Softwood			
1970	1490	900	2390	1300	..	3690
1980	2410	980	3390	1300	100	4790
1990	3460	2200	5660	1120	210	6990
1994	4320	3030	7350	950	250	8550
1995	4130	3310	7440	990	250	8680
1996	4290	3220	7510	880	250	8640
1997	4570	3600	8170	910	260	9340
1998	4830	3250	8070	800	290	9170
1999	5440	3210	8660	760	320	9730
2000	5530	3780	9310	740	380	10430

Table 5: Great Britain Wood Production Forecast 2002 to 2021
Annual average in the five years, 000 m3 overbark standing

		Softwood		Hardwood	Total
	Forestry Commission	Private Woodland	Total Softwood		GB only
2002-2006	5130	5750	10870	1000	11870
2007-2011	5980	7080	13060	1000	14060
2012-2016	6240	8200	14450	1000	15450
2017-2021	6850	8630	15480	1000	16480

UK sawmilling sector

The primary market focus for the UK's expanding log harvests is expected to be the sawn lumber sector, with the volume of saw logs doubling over the next 20 years. The UK industry hopes to double its market share for domestic sawn lumber from current levels of about 20 percent to over 40 percent. As the fencing and pallet markets are already well supplied, the industry is concentrating on increased share in the construction timber category, from less than 10 percent now to 30 percent by 2025.

Increasing supplies will build on the significant productivity gains of British sawmills over the past 20 years. Improved productivity has been achieved through investment in imported technology from North America, Sweden and Germany. UK businesses are actively developing relationships with downstream markets, notably the construction sector, in order to improve levels of service. UK sawmillers are also seeking to exploit their ability to respond almost immediately to orders for closely specified components and dimension stock for timber fabricators.

The Forestry Commission's most recent survey of UK sawmills estimates that in 2000 there were 297 sawmills processing British timber, of which 178 produced at least 1,000 m3 sawn lumber. Of those 178 mills, 132 processed softwood only, 11 hardwood only, and 35 both hardwood and softwood. Of the 119 smaller mills, 48 processed softwood only, 17 hardwood only, and 54 both hardwood and softwood. Of the mills covered by the survey, it is estimated that only 16 used imported round timber in 2000, totaling 9,200 m3 (underbark) softwood and 7,900 m3 (ub) hardwood.

Domestic Softwood

Considering the short term market position, the Forestry Commission's sawmill survey for 2000 shows that the volume of softwood logs sawn was 3.94 million m3 underbark, producing 2.16 million m3 of sawn lumber. This is 0.2 percent higher than the level in 1999, but more than 10 percent above the average for the previous 5 years (1994-1998). About 50 percent of all the softwood is sawn in the UK's 13 largest mills. The equivalent figure in 1998 was only 40 percent, one indication of increased concentration in the sector.

Species consumption by mills showed little change since 1998; the species reported were spruce 67 percent (compared to 68 percent in 1998), pine 19 percent (18 percent) and other conifers 15 percent (14 percent). Softwood production broken down by market classification showed that 34 percent (31 percent) went to construction (including agricultural buildings), 34 percent (32 percent) to fencing, 29 percent (33 percent) to packaging and pallets and 3 percent (4 percent) to all other markets. Compared with 1998, this is an increase in construction, and a decrease in packaging/ pallets.

Despite rising production levels, trading conditions for UK softwood sawmillers were challenging during 2001. Underlying demand during the first half of the year and into the summer was reasonably buoyant. However, the strong pound and weakening softwood markets elsewhere in Europe have contributed to fierce competition from lower priced imported softwood, especially from Sweden and the Baltic states. There is also poor demand for sawmill-co-products, due to subdued demand for UK panels and increased use of recycled products which is disrupting cash flow and undermining the profitability of UK mills.

The profitability of UK mills has also suffered from the relatively high cost of green logs. Although UK log prices were marginally lower in 2001 than in the previous year, they have not declined to the same extent as lumber prices. One contributory factor has been supply constraints due to foot and mouth disease, which led to restricted access to forests and extra controls on harvesting in some parts of the country. Many forests owners were reluctant to allow contractors and hauliers who may have traveled long distances through previously infected areas to come onto their land. However by the end of the year, many access restrictions had been lifted and many growers were looking to reinstate harvesting programs that had been postponed. The competitiveness of the UK softwood industry also continues to suffer from high haulage costs due to the relatively heavy burden imposed by the UK Government through duty on fuel and high rates of Vehicle Excise Duty. The UK has the most expensive diesel in Europe.

Domestic Hardwood

The Forestry Commission's sawmill survey for 2000 shows that the volume of hardwood logs sawn was 183,000 m3 underbark and total hardwood lumber production was 107,000 m3 sawnwood, both down around 10 percent on 1999. The breakdown of hardwood consumption by species consisted of oak 38 percent (compared to 37 percent in 1998), beech 22 percent (26 percent), ash 15 percent (13 percent) and sycamore 7 percent (13 percent). Hardwood production broken down by market classification showed that the main markets were sawn mining timber 35 percent (compared to 22 percent in 1998), furniture 32 percent (36 percent) and construction 21 percent (14 percent).

The limited volume of quality hardwood produced in the UK is valued for its aesthetic and perceived environmental benefits. It finds a ready market in veneer, furniture and prestige building applications. It is supplied from well-established family businesses that, rather than holding speculative stock, generally buy only for known customers.

Suppliers of British hardwoods reported reasonable levels of activity and stable prices during 2001, although imported stock continued to take some share from UK grown material as buyers sought to reduce costs. Certain traditional sectors of the market for British hardwoods are also in long term decline, notably upholstery. However, interest in English and Welsh oak remains high for a wide range of uses, including joinery, flooring, decking and construction. The problem of how to utilize lower quality hardwood in an economically viable way remains a problem for the UK hardwood sector.

Domestic Panel Products

The 1990s was a period of inward investment and rapidly expanding processing capacity in the UK panel products sector. The total processing capacity of UK wood panel products mills increased from 3,353,000 green tonnes in 1994 to 4,850,000 green tonnes in 1999. Particleboard capacity, including wood chipboard and cement bonded particleboard and Oriented Strand Board (OSB) rose from 2,600,000 to

3,450,000 green tonnes, while fibreboard capacity, mainly MDF, increased from 753,000 green tonnes to 1,400,000 green tonnes. Very limited availability of large diameter logs in the UK has meant there are no domestic plywood manufacturing facilities.

Growth in the panel products sector was a response to increased availability of small roundwood and sawmill co-products as the UK's domestic plantations have reached maturity. Much of the growth has been led by foreign companies, with leading players including Nexfor (formerly CSC Forest Products); Kronospan; Egger; Willamette (Europe); and Sonae/Tafisa.

The pace of growth in this sector slowed considerably during 2001 as the market reached saturation point. Domestic capacity is now sufficient to meet existing UK market demand for MDF, particleboard/chipboard and OSB. Recently new investment has tended to focus on more specialized products. For example, in response to rising demand, Kronospan UK has been expanding their laminate flooring facilities during 2001.

During 2001, UK producers of most wood panel products continued to experience difficult trading conditions. UK manufacturers continue to face strong price competition from overseas producers, due largely to the continued strength of Sterling/weakness of the Euro. In common with other sectors of UK industry, UK panel product manufacturers continue to ensure tight cost controls and to maximize operational efficiency. Increasing volumes of recycled wood fibre are also being utilized by the sector, primarily for particleboard manufacture.

2. Trade

2.1 Overview and Outlook

Imported Hardwoods

Overall hardwood sawn lumber imports into the UK are expected to fall from around 443,000 m3 in 2000 to 421,000 m3 in 2001. Temperate hardwood sawn lumber imports should remain static at around 245,000 m3 in 2001. Tropical hardwood imports are expected to fall from 198,000 m3 to 176,000 m3.

Trading conditions for American hardwoods in the UK were not particularly favorable during 2001. However volumes held up reasonably well during the year, and American hardwoods continue to form the mainstay of the UK hardwood lumber import trade – a tribute to the marketing efforts of the American Hardwood Export Council (AHEC). U.S. export data for the first three quarters of 2001 indicates that volumes to the UK were down 2.3 percent compared with the same period the previous year. Forward orders for American hardwoods from UK importers were relatively slow during 2001, but UK agents consistently reported steady purchasing of these hardwoods by manufacturers. Due to greater economic uncertainty in 2001, importers' stock levels of American hardwoods were being be kept at low levels, so purchase on a just-in-time basis of containers of mixed species and thicknesses tended to increase.

Currency fluctuations have increased this tendency. While the UK lies outside the Euro-zone and has therefore not been so affected by the Euro's weakness, fluctuations in sterling-dollar exchange rates over the last 2 years have added to the uncertainty. Importers have not had a clear idea how much each new parcel of wood is going to cost, contributing to even greater reluctance to buy forward. Cross trading between importers to fill gaps in inventories as they appear remains an important feature of the trade. The trend for UK importers to buy U.S. hardwoods from concentration yards in continental Europe has also continued.

American white oak is the major American species in the UK, accounting for around 50 percent of UK imports of American hardwoods. Anecdotal evidence suggests that red oak demand in the UK was reasonable during 2000 but slowed during 2001. As in other European countries, walnut is increasingly popular. Demand for American ash has been down on previous years, but sales remain reasonably steady due to bargain prices currently available for this species. Poplar (tulipwood) remains popular as a utility hardwood in the UK.

Competition from Eastern European suppliers of hardwood lumber has been less of a factor in the UK than in other European countries due to the UK's stronger traditional links with the USA, lack of hardwood processing and kiln drying facilities in the UK, comparatively long overland transport routes between the UK and Eastern Europe, and the UK's non-membership of the Euro-zone. UK import data suggests that volumes of European hardwoods imported into the UK are growing only slowly.

On the other hand, considerable inward investment in Eastern European hardwood processing facilities during the 1990s has improved the quality of products available from Eastern Europe and UK importers are showing greater interest in these products. UK traders continue to report rising levels of sawn oak

imports from Russia, the Ukraine and Poland; sawn beech from Romania; and sawn beech and oak from Italy which has been processed from logs derived originally from the former Yugoslavia. Tracking the level of UK trade in Eastern European hardwoods is complicated since it is common practice for much of this wood to be transported and further processed in Western Europe prior to shipment to the UK.

The partial recovery of tropical hardwood lumber imports into the UK during 1999 and 2000 appears to have been a temporary trend. UK imports from Malaysia suffered a particularly dramatic fall during 2001 due to the very high stocks of dark red meranti that built up in the UK in 2000. Importers were also hit by the rapid fall in forward prices for meranti, which led to devaluation of existing landed stock. After the problems experienced in the meranti market over the last two years, and due to a partial switch by manufacturers to African sapele, there now seem to be fewer companies actively involved in the UK meranti market.

The UK market for African redwoods remained stable during 2001. African hardwood suppliers, who mainly invoice in Euros, have continued to benefit during 2001 from the weakness of the European currency. Longer-term prospects for UK imports of tropical primary products are not particularly good due to cut-backs in log production and moves to value added processing in many tropical countries. More and more tropical wood is expected to be supplied to the UK as semi-finished or finished components.

Imported Softwoods

The UK delegation to the European Softwood Conference in October 2001 reported that UK softwood sawn lumber imports reached 7,639,000 m3 in 2000, up slightly from 7,462,000 m3 in 1999. Higher imports were mainly due to higher sales of carcassing, packaging and garden grades. However, UK imports during the first half of 2001 were down around 1.5 percent on the same period the previous year, and this weakening trend was expected to continue during the second half of 2001. Overall imports were expected to fall away during 2001 by 3 percent to around 7,400,000 m3. Slower imports during 2001 reflect the slight slowdown in the UK economy and more subdued activity in the construction sector. Imports were forecast to rise very slightly to around 7,471,000 m3 in 2002.

Although underlying demand for imported softwoods witnessed some improvements during 2001 by comparison with 2000, demand turned out to be weaker than the industry expected. The turnover lost in the Fall of 2000 because of the fuel crisis, flooding and rain, was not clawed back into sales during 2001. House building was reasonably steady during 2001, but failed to make up for the units lost to bad weather the previous year.

As in other sectors of the trade, exchange rate volatility over the last 2 years has encouraged UK softwood importers to maintain generally lower stocks and shift increasingly to just-in-time ordering. Trade reports indicate that since mid 2000, softwood stock levels in the UK have been at historically low levels.

Softwood prices in the UK, which were generally weak in 2000, continued to weaken during the first quarter of 2001, before stabilizing at a low level during the remainder of the year. Various factors contributed to low prices for softwood in the UK including:

- high levels of production in Scandinavia early in 2001
- slowing global demand which increased the volume on offer to UK buyers

- a trend towards direct sales through Scandinavian shippers' UK sales offices and customers by-passing the traditional importing sector
- the continued weakness of the Euro and Swedish krona against pound sterling.

Due to the strength of the U.S. currency, products invoiced in US$ - including American and Latvian softwoods – were at a competitive disadvantage during 2001.

Although 2001 started badly for the UK softwood trade, demand picked up during the second and third quarters and importers stock levels fell consistently so that by the end of the year there was a better balance between supply and demand. Although most buying is still short term, there have been some reports of importers being more willing to engage in long term contracts based on expectations of rising demand and prices.

The market for whitewood, used extensively for carcassing in the UK, was led during 2001 by the Swedes and Latvians. At current exchange rates, Swedish producers have been able to supply kiln dried material at a lower price than competing Latvian producers. The Latvians are seeking to overcome this by focusing on specific UK buyer needs, concentrating in particular on length specifications in joist sizes. Swedish production is almost exclusively kiln dried, whereas Latvian kilning capacity is more limited and the country still produces significant volumes of relatively cheap unseasoned and ungraded sawn carcassing. Latvian producers have continued to lead the market for undried whitewood, for which the UK still has a large appetite despite various initiatives to convert the British market to seasoned timber.

The market for redwoods, used widely in the UK for the production of planed products, windows and door frames and other inside finishing tasks, continues to be dominated by the leading Scandinavian producers in Finland and Sweden. However there has been increased competitive pressure from Russian suppliers, notably in the Archangel region of Northern Russia. Over recent years, some of the UK's biggest buyers have turned to Russian suppliers that are able to offer products at lower prices. Russian producers have also sought to reduce their dependence on transhipments through large continental ports by increasing direct shipments to the UK from northern Russia. Sales of Russian softwood to the UK increased significantly during the second half of the 1990s, reaching 548,000 m3 in 2000. During 2001 sales may have fallen away slightly, partly due to shortages in the Archangel region. Scandinavian producers also continue to be more flexible than Russian producers in the supply of specific grades and dimensions.

The strength of the dollar relative to sterling, combined with the weakness of the Euro and Swedish krona, has meant that U.S. sawn softwood lumber has continued to be generally uncompetitive on price in the UK market during 2001. Use of U.S. softwoods in the UK is now concentrated in higher value niche markets, including better quality doors, windows and decking. UK imports of U.S. softwood sawn lumber rose slightly from 44,000 m3 to 52,000 m3 between 1999 and 2000, but may have fallen away slightly to 48,000 m3 in 2001.

UK softwood imports from Estonia, which supplies mainly scantlings, glulam boards and softwood furniture components to the UK, recovered during 2001 after a relatively bad year in 2000.

There continues to be good growth in the UK market for garden decking and other softwood garden products such as furniture. There may have been some slowing during 2001 compared to the spectacular pace of growth apparent in 2000, and it is evident that the market has become increasingly crowded and

extremely competitive. However decking sales during 2001 were stronger than many importers had anticipated, partly boosted by good weather in the summer and fall, and this led to extended delivery times for these products during the second half of the year.

Imported Panel Products

Overall imports of plywood into the UK continued at high levels during 2001. Hardwood plywood imports are forecast to rise from 664,000 m3 in 2000, perhaps to as high as 700,000 m3 in 2001. Softwood plywood imports are forecast to increase from 547,000 m3 in 2000 to over 600,000 m3 in 2001. Despite high levels of imports, trading conditions are difficult characterized by intense competition. Oversupply and low prices, notably of Brazilian and Indonesian plywood, together with low prices for alternative panel products including OSB and MDF have had an impact on margins. Large quantities of plywood have continued to flow into the UK even though underlying consumption levels are at best moderate.

Unfavorable exchange rates and relatively high lumber costs in the U.S. meant that UK imports of American plywood continued only at very low levels during 2001. Volumes are forecast to be somewhere in the region of 15,000 m3 to 20,000m3. These figures are well down on 1997, when they reached 254,000 m3.

The huge increase in production of Brazilian elliotti plywood, which began in the late 1990s based on maturing plantation resources in southern Brazil, has had a huge impact on the UK plywood market. UK imports of this product more than doubled between 1999 and 2001, rising from 160,000 m3 to a forecast 350,000 m3. Prices have been so low that elliotti pine plywood is taking UK market share from domestically produced OSB. Prices may drop lower still, given that import duty is scheduled to come off Brazilian plywood in January 2002.

Elliotti pine plywood remains a deeply controversial issue within the UK plywood and OSB sectors, particularly in relation to it's use in structural load-bearing applications. APA Engineered Wood Association has continued to wage an education campaign targeted at building control officials and architects concerning the use of non-complying plywood in load-bearing applications. But this campaign is having to overcome a deeply rooted attitude in the UK that price overrides all other considerations.

On the hardwood plywood side, during 2001 Indonesia maintained the relatively high level of shipments to the UK recorded during the two previous years. UK imports of Indonesian plywood are again expected to reach well over 200,000 m3 in 2001. Prices for Indonesian plywood have been extremely weak for the last three years, ever since the onset of the Asian financial crises, due to slow global demand, overproduction, and the continuing weakness of the Indonesian Rupiah.

Although UK imports of Indonesian hardwood plywood remained high during 2001, supply problems and a general lack of good quality logs has led to declining plywood quality and numerous delayed shipments. This provided more opportunities for Brazilian hardwood plywood shippers to take a larger slice of the UK market during 2001. Weakening demand for Brazilian hardwood plywood in other markets, including Brazil's domestic market and the USA, has also encouraged increased shipments to the UK. UK imports of Brazilian hardwood plywood are likely to be close to 200,000 m3 during 2001. While Brazilian hardwood plywood shippers are expanding sales in the UK, their margins are also extremely tight. Their efforts to force up prices in sales to the UK have met with firm resistance from importers. Malaysian shippers of hardwood plywood, formerly major suppliers to the UK market, have had supply problems

of their own and have been unable to compete on price this year.
Finnish birch prices fell during 2001 as European demand weakened and as competition intensified from new production plants in Latvia and Russia. Finnish producers have been responding by a shift to value-added production and targeted end uses.

Prevailing OSB prices have also been extremely weak in the UK during 2001, partly a reflection of rising capacity in Europe. In 2001-2002, European OSB capacity is forecast to rise from 2 million to 2.7 million m3. European producers, notably in France, have been seeking to increase sales in the UK at a time when demand on the continent has been weak. However by the end of 2001, reports were beginning to emerge that efforts by European OSB suppliers to restrict production had meant supplies were coming more into line with demand and that prices were beginning to firm. Low prices throughout 2001 also enabled OSB to break into new applications.

Imported value added products

There is a growing trend for non-EU exporters to the UK to concentrate on value added products, including prefabricated and dimension material, semi-finished and finished components and products. The trend is driven by a number of factors including:

- the economics of the supply chain, which dictates that it is more cost effective to transport value-added products rather than bulky raw materials
- the increasing availability of panel products and utility wood supplies from the UK and continental Europe, undermining markets for solid wood
- the increasing trend towards out-sourcing by UK manufacturers
- moves to reduce exports of unprocessed raw material and increase production and value added at source by producing countries, notably in the tropics.
- comparatively high labor costs in the UK compared with developing countries

Table 6: Value of UK imports of value added wood products during 1999, 2000 and forecasts for 2001 - million Euros

a. Profiled Wood					b. Builders Carpentry & Joinery			
	1999	2000	2001 (F)			1999	2000	2001 (F)
Italy	26	21.4	24.5		Denmark	36	42.2	48.3
Canada	12.3	20.1	17.8		Indonesia	37.4	53.3	44.6
Malaysia	11	12.7	13.6		South Africa	28.6	36.6	36.6
Sweden	11.3	13.9	13		Sweden	48.4	32.8	32
Indonesia	13	16.1	12.2		U.S.A.	18.4	23.7	29.7
Finland	13.6	8.4	10.5		Norway	25.1	26.5	26.3
Netherlands	7.1	11.7	10.5		Brazil	23.6	30.5	25.7
U.S.A.	10.7	10.9	9.4		Poland	18.3	23.5	24.5
Portugal	3.1	6.6	7		Malaysia	22.6	27.6	24.3

Others	40.7	48	37.5		Others	111.5	149.1	154.9
Total	148.9	169.7	155.9		Total	370	445.8	446.9

Forecasts for imports of the main value added wood products into the UK indicate that the upward trend continued for most products during 2001. Despite the relative strength of the dollar, the United States is benefitting from the trend. UK imports of builders joinery and carpentry (Table 6b) and wooden furniture (Table 7) manufactured in the U.S. increased again during 2001. However other countries are seeing stronger growth, notably Asian countries including China, Indonesia and Malaysia, and Euro-zone countries like Italy, Denmark and Belgium.

2.2 Competitors' market promotion activities

U.S. competitors' marketing in the UK received a major boost during 2000 and 2001 through the "Wood for good" promotional campaign funded primarily by Nordic and UK interests. The campaign is focused almost exclusively on softwood lumber and aims to increase significantly the use of structural and decorative wood through media advertising. Wood for good is the largest single timber industry promotion ever mounted in the UK and targeting both trade and consumer audiences. The campaign began with newspaper and magazine advertising followed by a major TV advertising campaign in 2001. Funding amounts to £9 million over the period 2000 to 2002 and is assured by a consortium of eight organizations, led by the Nordic Timber Council and including the Forestry Commission, the Timber Growers Association, the UK Sawn Wood Promoters, the Timber Trade Federation and the Northern Ireland Forest Service. There are three main strands to the campaign:

- the trade campaign, "Building with Wood", is aimed at professionals and concentrates on promoting the benefits of timber-framed construction.
- the consumer campaign, "Living with Wood", is aimed at the general public and promotes the use of wood both inside and outside the house.
- the issues campaign is aimed at those who shape and influence opinion and policy on housing, targeting politicians, senior government officials, senior executives in building and construction and local government planners. It focuses on the environmental benefits of using wood.

Simultaneously, the Nordic Timber Council is running Nordic First, a £1.4 million a year promotion for Nordic timber. The campaign began with retail/merchant targeted press advertising, and in the next phase involved direct liaison with the major DIY retailers and builders merchants to develop point of sale products and a range of literature and guides. These are designed "both to inspire consumers and instruct them in using Nordic timber in a wide range of applications." The campaign has featured Charlie Dimmock, a well known TV gardening personality in the UK, who is now preparing a book full of "simple projects using Nordic Timber" which will be sold for £1.00, with all proceeds given to the Royal Society for the Protection of Birds. The campaign is planned to run for three years 2000 to 2002 inclusive.

In the hardwood sector, the Malaysian Timber Council undertakes the full range of marketing activities. During 2001, MTC has continued to focus on the furniture market, with a view to expanding market share for rubberwood. MTC have also been active in the environmental debate, marketing their national certification program directly to members of the UK's WWF Buyers Group and pursuing mutual

recognition of their certification scheme with the Forest Stewardship Council.

Ghana is the only other tropical country with an active marketing presence in the UK. The Ghana Timber Export Development Division objectives are to develop a stronger export market for added value products, to encourage trade in Ghanaian species other than the traditional and well known; and to promote Ghana's efforts to certify products based on their National Forest Standards. The organization publishes an occasional newsletter for the UK trade. Activity is otherwise low-key.

Canada was formerly well represented in the UK by full time employees of British Colombia's Council of Forest Industries (COFI) and industry representatives of the eastern Maritime Provinces. However, both organizations have withdrawn their marketing presence. The Canadian industry is now represented in the UK by independent consultants working on technical standards and by an office of the Canadian Pulp and Paper Association based in Brussels.

It is notable that many of the U.S.' major competitors - including continental and Eastern European countries, Canada, Brazil, and Indonesia – still have no effective market development organization based in the UK. Marketing, if carried out at all, is left in the hands of individual firms.

2.3 Environmental certification

In the context of trade and marketing, it is worth emphasizing the continuing steps of many U.S. competitors to exploit the development of forest certification schemes. These schemes are designed to provide customers with independent guarantees that wood derives from sustainable sources. The development of independent forest certification has been led by the Forest Stewardship Council (FSC). FSC was developed on the initiative of commercial certification companies, like SGS, and leading environmental groups, notably the World Wide Fund for Nature (WWF). Support for the initiative has since expanded to encompass a broader range of interests, including a section of the commercial forestry community.

Between 1995 and 1999, there were sure signs of increasing demand for certified forest products in the UK market. The development of demand for certification was led by members of a Buyers Group organized by the WWF. The **"**1995 Plus Group" now has around 100 members in the UK which together account for over 20 percent of the UK wood trade. Members of the group have made a voluntary commitment to progressively increase purchases of FSC certified wood. The group is dominated by large home improvement retailers, such as B&Q and Sainsbury's Homebase, and their direct suppliers.

Over the last two years, the size of demand for certified forest products in the UK seems to have reached a plateau. This reflects the fact that all the major Do It Yourself (DIY) retailing companies are already members of the buyers group. Volumes of certified wood traded outside the retailer sector have remained very small and the environmental credentials of forest products tend to be of lesser importance to consumers than price, availability and quality.

Even in the public sector, demand for certified wood remains restricted. This was highlighted in 2001 by a WWF survey of local authority environmental timber procurement policies. Of those responding, 69 percent of local authorities had no such policy, 3 percent didn't know whether they had a policy, and only

28 percent had a policy. Of those that had a policy, two thirds had no idea how it was being implemented and had developed no monitoring system.

Nevertheless, this situation could change. The WWF has embarked on an ambitious campaign to promote the FSC in the UK. This has included advertisements on bill boards and in the national press featuring James Bond actor Pierce Brosnan. WWF has established an ambitious target for the UK timber trade which states that by the end of 2005, 75 percent of the timber and paper traded in the UK should come from "*credible certified*" or recycled sources. To achieve this for paper, WWF will focus their campaigns on magazine and book publishers, newsprint manufacturers, and office suppliers. For timber, WWF will focus particularly on the construction sector, panel products, and tropical timbers.

The effects of WWF's promotional efforts may be much less than the rising level of consumer awareness created by the widespread availability of FSC on-product labels in DIY stores throughout the UK. A recent WWF consumer survey indicated that 13 percent of UK consumers now recognize the FSC logo, compared with 7 percent a few years ago.

There is also considerable political support in the UK for forest certification, as illustrated by statements of support for the 1995 Plus Group from UK Prime Minister, Tony Blair, and Prince Charles issued at the Group's Ten Year Anniversary Event held in November 2001. The strength of political support for forest certification partly reflects the fact that 40 percent of domestic forests are now FSC certified, an area which includes all the UK's state-owned forests. With UK wood output set to double in the next 10 years, the UK forest sector is counting on domestic forests satisfying an increasing proportion of UK demand for certified wood.

The UK government is also seeking to create demand for certified wood products through the implementation of environmental purchasing policies in the public sector. At the 1995 Plus Group Event in November 2001, government minister Michael Meacher noted that government departments would be seeking to promote "*appropriate procurement policies*" and that the UK government had hired independent consultants to provide guidance on methods to assess the credibility of claims of good forest management. He stressed, however, that the UK government would adopt an inclusive approach, recognizing a range of different forest certification schemes, not just the FSC. Meacher said that the UK government would set up its own criteria to assess credible certification. In establishing this policy, the UK government is operating in accordance with European Commission legislation on government public procurement. This legislation effectively prevents European public authorities from discriminating for and against suppliers on the basis of process and production methods. Municipalities that specify only FSC certified timber, for example, would risk being taken to court by the European Commission.

International and national legislation to prevent trade discrimination is therefore constraining efforts by green groups in the UK to ensure that demand for certified wood is restricted to the FSC. Another constraint has been the failure of the FSC so far to certify a significant volume of wood. By the end of 2001, FSC had certified world wide around 24 million hectares, an area very similar to that prevailing at the end of the previous year. Although FSC made some progress in certifying some new areas in 2001, for example a significant area of Latvian state forest land, other FSC certificates were suspended. Notable among the suspensions were the Perum Perhutani teak plantations of Indonesia which had been important suppliers

of raw material for garden furniture sold by the UK home improvement retailers.

Partly due to supply problems associated with FSC, there now seems to be increasing recognition from a large section of the trade that other forms of forest certification may be acceptable. This recognition is also encouraged by the huge growth in the area of forests now certified by non-FSC schemes. In Europe the Pan European Forest Certification Scheme (PEFC) has made tremendous headway over the last two years, recognizing national forest certification schemes in Austria, Czech Republic, Finland, France, Germany, Latvia, Norway, Sweden, and Switzerland and certifying nearly 40 million hectares of forest. Another four PEFC certification schemes, in Belgium, Portugal, Spain, and the UK, were undergoing assessment at the end of 2001.

Although the pace of UK market shift to FSC may have slowed, the difficulties of FSC certification in the United States (notably the tendency for mills to rely on gate wood supplied from hundreds of land owners and the firm resistance to FSC of many of these land owners) may still be a significant impediment to U.S. market access in the future, particularly in the retailer sector. On the other hand, the opportunity exists to improve market awareness of U.S. approaches to sustainable forestry through formal systems of mutual recognition with the emerging PEFC scheme.

Work on the development of mutual recognition criteria to link PEFC with schemes outside Europe, like the American Forest and Paper Association's Sustainable Forestry Initiative (SFI) and the American Tree Farm System, continued to make progress during 2001. SFI became a formal member of the PEFC during 2001 as a first step towards eventual mutual recognition between the two initiatives. The International Forest Industry Roundtable (IFIR), a discussion forum for the world's leading forest industry associations, has been promoting an "International Mutual Recognition Framework System" for forest certification schemes. Both the American Forest and Paper Association (AF&PA) and the UK Timber Trade Federation, which represents UK timber importing companies, have been closely involved in IFIR's work.

2.4 U.S. market development strategies

Analysis of best market prospects and options for furthering U.S. market share are described in detail under the relevant market sectors (see Section 3).

3. Market Segment Analysis

3.1 Construction Sector

3.1.1 Overview

Structure and size of sector

According to the Department of Environment, Transport and Regions (DETR), the value of UK construction output (at current prices) increased progressively between 1995 and 2000 from US$84.2 billion to US$111.5 billion. This trend continued during the first three quarters of 2001, output growing by a further 6 percent during this period. A large part of construction activity comprises repair, maintenance and improvement work (RM&I). Work to expand the UK's existing stock of around 24 million houses forms a comparatively small part of the sector. According to DETR, between January and September 2001 (comparative figures for the year 1999 in brackets), the value of work in construction comprised:

- 2 percent (1.5 percent) on the development of new homes by the public sector
- 11.5 percent (11 percent) on the development of new homes by the private sector
- 10 percent (9 percent) new work on infrastructure
- 5 percent (6 percent) private-sector new industrial buildings
- 18 percent (18 percent) private-sector new commercial buildings
- 7 percent (7.5 percent) public-sector new non-residential buildings
- 46.5 percent (47 percent) repair, maintenance and improvement

According to DETR figures, at least 65 percent of construction activity is funded by the private sector. Between 1996 and 2000, the value of private sector construction output rose strongly, by 55 percent in the new housing sector, by 19 percent in the industrial sector, by 80 percent in the commercial sector, and by 28 percent in the RM&I sector.

Public sector spending on new houses and infrastructure declined between 1996 and 1999. However the Labour government's recent commitment to improve infrastructure and social housing led to a reversal of this trend in 2000 and 2001. Between January and September 2001, the value of construction work on new infrastructure and public sector housing was up 15 percent and 7.5 percent respectively on the same period the previous year. Public spending on RM&I increased by 1 percent during the same period.

Wood use in the construction sector

Timber frame construction has been uncommon in the UK due to strong consumer preference for brick and block construction. The National House-Building Council reports that in Great Britain around 10 percent of new homes built during 2001 would be of timber frame. Only around 6 percent of homes constructed in England during 2001 would be timber frame, although this is a significant increase on the figure of 3 percent prevailing only a few years ago. In Northern Ireland around 3 percent of new homes registered in 2001 would be timber frame. Timber frame is more common in Scotland, accounting for around 48 percent of new homes built during 2001.

While timber is still not common in some parts of Britain, nearly all new houses in the UK contain a large

softwood and panel product component including:

- Roofs commonly constructed of softwood prefabricated truss rafters and tiling battens.
- Treated softwood is the preferred option for window frames in new house construction, although uPVC still dominates in the replacement sector.
- Upper floors are often constructed of wooden joists with chipboard floor decking.
- A variety of solid timbers and panel products are used for interior doors. A high proportion of exterior doors still comprise solid wood.
- Staircases typically comprise solid wood and some panel products

Use of wood and panel products in the non-residential sector is generally restricted to rafters, joists, flooring, internal walls and other internal applications. Wood use in the sector faces stiff competition from alternative materials, although there is an increasing trend towards timber frame.

Overall, construction accounts for around 60 percent of all timber used in the UK. A large proportion of the wood used in the construction sector is of softwood and panel products. Much of the volume is supplied from Nordic and Baltic countries, and increasingly the UK itself.

Considering U.S. products, U.S. softwood lumber is not being promoted for structural applications in the UK for reasons of price and distance. Instead U.S. softwood lumber is supplied to relatively high value niche markets, notably window and door manufacturers, flooring and timber decking. U.S. hardwoods are important in flooring and high quality joinery and finishing applications. U.S. hardwoods are very well represented in the shop-fitting sector. U.S. plywood is valued in the UK construction sector for its high quality and is used mainly as a structural component. The concrete forming market segment has been lost to Brazilian, Asian and Eastern European producers, based primarily on price. The UK construction market has been relatively slow to recognize and exploit the advantages of U.S. engineered wood products. However U.S. I-Joists of engineered wood are making inroads into the traditional softwood lumber joist market, and efforts are also being made to extend the use of U.S. Laminated Veneer Lumber (LVL) in the UK. .

Construction sector performance

The value of overall construction output in the UK has been rising consistently by around 6 percent a year since 1996. Construction output is widely expected to continue to rise over the next few years, although most forecasts suggest that the rate of increase will fall. For example, a recent forecast provided by Construction Forecasting & Research suggests overall construction output will rise by 2.4 percent in 2002 and by 2.8 percent in 2003. This compares with their forecast of 3.4 percent growth during 2001. Repair and maintenance work is expected to make the major contribution to the industry's total work load.

Housing start data has been less consistent. House starts in the UK fell from a high of 189,000 in 1997, to 177,400 in 2000. House starts during 2001 are expected to be marginally less than 2000 at around 177,100. However, most analysts expect this trend to be reversed during 2002, with house starts rising to around 179,000. Longer term forecasts suggest that house starts may rise progressively to perhaps 188,300 in 2005.

Underlying the optimism has been the continued relaxation of interest rates by the Bank of England and

reasonably optimistic forecasts of GDP growth in 2002. Most GDP growth forecasts for the UK in 2002 vary between 1.7 percent and 2.3 percent, a range slightly lower than 2001. Many analysts expect the UK economy to accelerate in the second half of 2002 after a relatively slow start to the year.

Longer term projections of the number of households in the UK also suggest that demand for new housing may tend to rise. Government forecasts suggest that the number of households in the UK may rise from 20.7 million in 1999 to 24 million in 2021. While overall levels of population are likely to remain reasonably stable, the number of households will be boosted during this period by an increase in the number of people living on their own.

Another factor underpinning optimism in the construction sector is the increased levels of public investment in the built environment following the UK government's Comprehensive Spending Review announced in summer 2000. In the Review the government indicated its intention to increase spending to maintain and upgrade the nation's infrastructure. The Review amounted to a significant reversal of government policy. Public investment fell sharply during the Labour government's first three years of office, but has since increased rapidly. Net capital spending by the public sector is scheduled to leap from £3.2 billion in 1999, to as much as £18 billion by 2003-04. Furthermore, the public investment figures do not include spending on public projects now being financed under the Private Finance Initiative, which encourages private sector involvement in construction projects to improve education and health facilities. Public expenditure on housing is also rising again after big cut- backs during the 1990s. The Government spent over £5.5 billion on housing in England in 1999/2000. This figure will rise to £6 billion in 2000/01 and £6.5 billion in 2001/02

An indication of the impact of increased government spending is apparent from recent data on the value of new construction orders by sector. During the first nine months of 2001, there were big increases in the value of new orders for construction of public-sector schools and colleges (up 50 percent on the same period in 2000), universities (up 52 percent), health-sector buildings (up 25 percent), and office buildings (up 50 percent). During the same period, the value of new infra-structure construction orders was up 13 percent compared to the previous year, with a particularly big increase (+35 percent) in the value of new orders for road construction. Although the figures do not itemize railways separately, recent problems on the rail network are likely to encourage additional public investment to be channeled into that sector.

Some significant trends are also apparent in the private sector. Private sector RM&I activity has been growing strongly over recent years and this trend is expected to continue. New-build office construction was a major driver of growth during the second half of the 1990s, with the value of new orders doubling between 1996 and 2000. However, the pace of growth slowed during 2001. The value of orders for new office construction during 2001 were at a similar level to the previous year. Orders for new shop construction declined by 12 percent between 1998 and 2000 but rebounded during 2001. During the first nine months of 2001, the value of new orders for shop construction was up 32 percent on the same period the previous year. By contrast, orders for new construction in the entertainment sector, which includes tourism, have been declining since 1998. This sector was particularly hard hit during 2001 as rural areas faced a major decline in visitors during the foot and mouth crisis. Building in the agricultural sector declined during 2001 for similar reasons.

Trends encouraging use of wood in construction

There are also specific trends favoring increased wood use in the construction sector. The use of timber frame continues to increase in the UK, a trend driven partly by the concerted promotional efforts of organizations like the Timber and Brick Consortium and the Building Research Establishment. Another important factor has been recent changes in building regulations which have placed increasing demands on construction companies to meet energy efficiency targets. While timber frame and pre-fabricated timber building systems can readily achieve the targets, traditional brick and block construction techniques tend to fall short. A new quality scheme for timber and brick introduced in September 2000, designed to help eradicate bad practice and encourage prefabrication, is helping to boost the market for timber frame construction in the UK. The scheme introduces independent third party controls on the quality of workmanship of timber frame designers, manufacturers and erectors.

One constraint to increased use of prefabricated construction techniques in the UK has been the restricted size of the sector and its inability to deliver in the volumes required. However, this problem is gradually being addressed. Capacity was on the increase during 2001, for example, Century Homes has built a new mill for the production of prefabricated houses in Scotland.

Major changes are also underway in the type of wood products favored in the construction sector. Structural softwood, which depends heavily on the housing industry, is losing market share to engineered wood products such as I-beams and LVL, which are being incorporated increasingly into timber frame packages. This trend reflects both the consistency and stability of engineered wood products, together with shortages of on-site labor skilled in the use of solid lumber. Longer term it seems likely that demand for 'system built' units supplied from large fabrication factories will tend to increase at the expense of solid lumber supplied by local builders merchants.

Trends in the mass-production joinery sector

The UK mass production joinery sector performed well during 2001. At the end of the year, some of the leading door, stair, flooring and window manufacturers were reporting that order and enquiry levels had outstripped those of 2000 and that the forward position was favorable. Various factors, including a joinery skills shortage and a desire to raise quality standards and simplify the on-site construction process, is leading towards increased demand for pre-assembled joinery products such as factory finished and fully glazed window units, doorsets and assembled stairs. Concerted efforts by manufacturers in the sector to develop products of consistent quality and with durability guarantees are contributing to rising sales.

In some cases, notably the window frame sector, wooden products are beginning to take market share from alternatives, such as uPVC. The British Woodworking Federation (BWF) claims that more than half the timber windows produced in the UK are now made by members of its Timber Windows Accreditation Scheme (TWAS). Members of the scheme supply complete factory-finished wooden window frames on-site with a 10 year life-time guarantee. The use of wooden window frames is also being boosted, particularly amongst housing associations, by the environmental advantages of wood over uPVC.

On timber species, attempts to match doors and staircases with increasingly popular hardwood flooring has contributed to a trend towards lighter colors. There is rising demand for doors in oak or ash veneer,

and for staircases and balustrades in oak.

Trends in the architectural joinery sector

After a good year in 2000, the architectural joinery sector remained reasonably active throughout 2001. There were reports of particularly good activity on commercial fit-outs, quality apartments, and shop fitting. However there were signs of a slowdown towards the end of the year as business confidence waned and analysts suggest that activity in this sector may slow slightly during 2002. In terms of species in demand, there has been a preference for "darker" light woods, such as steamed black walnut and steamed beech. Hard maple and cherry also remain popular.

Trends in the Do It Yourself (DIY) sector

The increasing involvement of owner-occupiers involved in renovation, coupled with the huge marketing efforts of the large home improvement retailers, is boosting sales in the DIY sector. Recent mergers have meant that this sector is increasingly dominated by the two largest groups, B&Q and Focus Do It All, which have been expanding operations. Focus Do it All have taken over Wickes and Great Mills. Sainsbury's Homebase have been refocusing operations to concentrate more on furniture.

Trends in the garden construction sector

Demand for wooden decking and other landscaping products continued to rise during 2001. The sector seems to have benefitted strongly from favorable reports in the increasingly ubiquitous home improvement programs on UK television.

3.1.2 Marketing

This section identifies constraints and opportunities for U.S. exporters supplying to the UK construction sector.

Price and third party competition

Expansion of markets for American wood products in the United Kingdom is constrained by price. This is particularly true of the construction sector which has always been highly price sensitive. Indeed this factor often overrides considerations of quality. Due primarily to distance, U.S. softwoods are uncompetitive on price in relation to the dominant Nordic suppliers of structural timbers. U.S. plywood is having difficulty competing on price with plywood from low cost countries, notably Brazil. In the shorter term, prices of U.S. softwood and panel products during 2001 have remained comparatively high due to the strength of the dollar.

Related to the last point are the constraints placed on U.S. expansion of market share in the construction sector by third party competition. A number of factors are worth noting:

- The ready availability to the UK construction sector of competitively priced supplies of softwood lumber from Nordic and Baltic countries
- The improving availability of European hardwoods, notably from Eastern Europe, to the joinery sector.
- European capacity to manufacture and supply OSB is rising rapidly. Europe also has an increasing base of local production of plywood in the higher end sector. The European producer has the

advantage of shorter shipping distances and delivery periods as well as an advantage of being present in the market duty free.

- The continuing expansion of UK domestic softwood and panels production
- The weak prices of Malaysian meranti lumber prevailing during 2001.
- The huge growth in the availability of low priced elliotti pine plywood from Brazil, and continuing sales of Indonesian hardwood plywood at low prices to the UK.
- The weakness of the Euro during 2000 and 2001 which has given European suppliers a significant price advantage in the UK.
- The Nordic countries and UK domestic softwood sector are now very active in marketing their products in the UK through campaigns such as "Wood for good" and "Nordic First".

Focus on high quality

The strength of the dollar and competitor prices are factors over which the U.S. forest products sector has little control. However the situation can be addressed to some extent through a marketing focus on the value for money of U.S. products in the form of consistency of yield, reliable grading, high quality, kiln drying capacity, ready availability and assurance of long term supply. The focus on higher quality niche markets has long formed a key component of marketing initiatives in the UK by American Softwoods, American Hardwood Export Council (AHEC), and APA-Engineered Wood Products. In a mature market like the UK construction sector, the challenge has been to find new market sectors and niche opportunities and to search out sectors and applications where price is not the prime influencing factor, for example custom joinery, and engineered flooring.

Over recent years there has been increasing recognition in the UK of the damage caused to timber's reputation through the use of sub-standard products in the construction sector. There are home grown efforts within the UK to raise awareness of the importance of product quality which, also argue strongly in favor of a U.S. focus on quality. For instance, U.S. suppliers of softwood lumber may benefit from concerted efforts over recent years to eliminate "wet" timber from supply for structural and timber manufacturing uses. The Timber Windows Accreditation Scheme (TWAS) is also raising quality standards in the wooden window sector, which may increase demand for treated southern yellow pine and for western red cedar.

In the panels sector, APA-Engineered Wood Products has continued to play a lead role in raising trade and end-user awareness of the importance of following UK load-bearing standards for plywood in structural applications (BS5268 Pt2). While U.S. softwood plywood fully complies with these standards, many other softwood plywood products, including those from Brazil, fall short of full compliance. APA's "Watchpoint" campaign, which has focused on these issues during 2000 and 2001, has involved targeted advertising in the construction and architectural trade press and professional seminars for architects and building regulators.

By the end of 2001, there were clear signs that the Watchpoint campaign has had a significant impact on attitudes within the timber trade. Several overseas producers, notably from the Far East, have been caught out misrepresenting product quality and have been forced to remove misleading labels. Members of the UK's Timber Trade Federation have signed a new code of conduct which requires them to clearly identify

plywood quality in their invoices and to ensure there is no mislabeling of plywood supplied. The trade is now much more aware of the quality and strength advantages of American plywood.

However the message has yet to fully filter through to the end users. For example, there are widespread reports of roofing contractors continuing to use inferior and unregulated plywood in structural applications. APA-Engineered Wood Products are pursuing this issue with building regulators both in the UK and at the European Commission.

The increased focus on quality in the UK has also encouraged the Brazilian plywood sector to begin work on the development of standards for the production on plywood. Although this is an essential step in the lengthy process of achieving conformance with the British and European structural standards, the Brazilian industry still has a long way to go.

Off-site and pre-fabricated production

Intense competition is tending to encourage greater efficiency within the construction sector. This trend has been intensified by concerted industry and government campaigns to promote efficiency. Furthermore, construction companies are having increasing difficulty getting skilled site labor. One significant outcome has been to increase the take-up of off-site and pre-fabricated production to provide consistent quality and faster construction. Broader experience of similar trends in the U.S. market should give U.S. suppliers an edge over many of their competitors in the supply of pre-fabricated materials.

Timber frame, I-Joists and LVL

As a world leader in timber frame construction, the U.S. should be a significant beneficiary of the emerging trend towards this form of construction in the UK. The U.S. is particularly well placed to supply I-Joists and Laminated Veneer Lumber (LVL) to the timber frame sector in the UK. Demand in the UK for both products, although small by comparison with other countries, is expanding. Unfortunately, due to the failure of European trade statistics to identify I joists and LVL separately it is not possible to gain an insight into the size of the market. Another area of uncertainty are plans by Finnforest to develop I-Joist manufacturing capacity in the UK. APA-Engineered Wood Products is now taking steps to improve the quality of market information on these products.

Expansion of the market for I-Joists and LVL is being driven partly by moves towards increased quality in the construction sector and partly by APA and other U.S. industry promotional activities. APA has developed a set of common standards for I-Joists which have been adopted by 4 mills in the United States. These mills achieved British Board of Agreement (BBA) approval during 2001. Three other U.S. manufacturers had already achieved BBA approval for their proprietary I-Joists. Of the 8 companies approved to supply I-Joists in the UK, 7 are from the United States. BBA approval has yet to be granted for the PRL-501 standard for LVL drafted by APA-Engineered Wood Product. The technical assessment of this standard undertaken by the UK's Timber Research and Development Association (TRADA) is currently being considered by the BBA and approval is expected by the end of March 2002. BBA approval of these standards opens the way for greater expansion of the UK market for U.S. I-joists and LVL.

One specific constraint to an increase in market demand for I-Joists and LVL was the failure of the UK's

National Building Specification Service (NBSS) to include these products in National Building Specification (NBS) documents. The NBS documents are a series of standard clauses covering a wide range of building materials used by architects to simplify the specification process. However APA-Engineered Wood Products, having identified this problem, has been working with the NBSS to redraft the relevant section of the documents (Section G20) which now include the appropriate clauses.

CE Marking

As elsewhere in Europe, the U.S. wood sector is also having to deal with the phased introduction of CE Marking of products used in the construction sector. The aim of CE Marking is to ensure that products which are fit for their intended use can be freely traded throughout the European Union. This applies both to products produced within the Community and those imported from countries outside the Community. CE Marking is designed to overcome the problems which currently prevail through the application of different technical requirements in the member states of the EU. CE marking aims to remove these technical barriers to trade within the single market by establishing a single, agreed standard for demonstrating the performance of particular products, and a system of certification and test bodies which are recognized as competent throughout the Community. CE marking is, in effect, a "passport" for manufacturers to market their products throughout the EU.

Unlike several other European countries, CE marking is not mandatory in the UK for construction products. However the visibility of CE marking on construction products is expected to accelerate during 2002. CE marking will also be essential if UK buyers wish to re-export to other EU countries in which CE marking is compulsory.

The U.S. wood based panels industry is already pursuing CE trademarking privileges for their products. APA-Engineered Wood Products will be sub-contracting through a European Notified Body to carry out all the audits necessary for U.S. suppliers to place CE marks on U.S. structural wood products including plywood, I-Joists and LVL. APA-Engineered Wood Products is also participating alongside trading standards offices and other panel products suppliers on a committee established to combat fraudulent CE Marking.

In the long run, U.S. active participation in the CE Marking process should create opportunities for U.S. suppliers to take market share from less pro-active suppliers.

Expanding market segments

The strong development of demand for wood in specific construction applications, driven by changing fashion, environmental and health concerns, and concerted wood industry marketing is creating new opportunities. Particularly prominent during 2001 has been the continued growth in demand for wooden decking. As a relatively new market segment, there remains an opportunity to gain a strong market position by making U.S. softwood products well known to suppliers and builders in the decking and landscaping market who have not yet established strong preferences for competing species or products. There are also likely to be opportunities for the U.S. industry to take part in the development of industry standards on decking to ensure that they do not disadvantage U.S. suppliers.

The developing demand for wooden flooring, whether solid, engineered or laminated, also continues to

provide opportunities for U.S. wood products. Natural wood flooring is highly fashionable, while carpets are increasingly avoided partly due to concerns over their contribution to allergies and respiratory disorders. The U.S. holds a number of competitive advantages in this end-use including consistent and reliable supply of high grade material, kiln drying capacity, and superior product characteristics such as hardness and appearance. The growth in the market for wood flooring is particularly significant because it is generating demand for lesser-used species from the United States, such as American birch and hickory.

Buoyancy in the UK residential construction market also offers opportunities for specific American wood species. For example, western hemlock is already favored by many construction firms in the UK for exterior rear doors and demand usually picks up following an increase in house starts.

The high level of orders for new shop construction recorded in the UK during 2001 suggest that shop-fitting should be a particularly buoyant market segment during 2002.

Renewed investment in the road and rail network may increase demand for various wood products. For example, as concerns over the environmental impact of roads has increased, the use of wooden sound barriers, which absorb wood in large volumes, has become more common.

Lack of awareness among joinery specialists, architects and interior designers

Awareness of American wood products is fairly well established within the UK wood products trade, but a lack of awareness and understanding by the intermediate suppliers, such as the joinery contractors and manufacturers and flooring installers, and by architects, specifiers and interior designers remains a major constraint to expansion of U.S. market share in the UK construction sector. This applies to all products including softwoods, hardwoods and panel products. In some cases the ignorance runs deep. For example, architectural courses in the UK are notorious for their failure to adequately address the use of wood for construction.

This important constraint has been recognized by the U.S. wood export promotional organizations in the UK, each of which has developed programs to tackle the problem. AHEC has identified the specialist joinery industry as a particularly important target for promotional campaigns during 2002. Joinery contractors have an important influence over the species chosen for a project, but many are ill informed and often provide misleading information. American Softwoods is running campaigns targeted at flooring installers and specifiers. APA Engineered Wood Products is targeting construction professionals, architects and designers, for example through a series of seminars which will provide technical information on the use of I-Joists.

In launching these campaigns, the U.S. industry is one step ahead of most other suppliers, with the possible exception of the Nordics. As a result, this constraint is being turned into an opportunity for American suppliers to take market share away from other less pro-active suppliers.

Broadening range of species used

Although American hardwoods are well established in joinery applications, the sector has traditionally focused on a limited range of species. This has restricted the opportunities to expand the use of American hardwoods, particularly as the species preferred – such as cherry, hard maple and white oak – are not

necessarily the most commercially available. Opportunities for American hardwoods would increase considerably if there were wider acceptance of readily available species such as red oak, soft maple and tulipwood, particularly as these species can be cheaper than "traditional" American hardwoods. This issue is now being addressed through AHEC's promotional campaigns.

Hardwood structural testing

To date, references to American hardwoods have not been included in the relevant British and European standards for hardwoods used in structural applications (EN338). However, AHEC commissioned the UK's Building Research Establishment to carry out the necessary testing on red oak, white oak, ash and tulipwood. Testing was completed during 2001 and a report has been submitted for inclusion in the standard. This should create new opportunities for efficient structural design using American hardwoods, and encourage greater utilization of these species in the UK construction sector.

Environmental certification

Demand for forest certificates is particularly significant in the UK's DIY sector. In this sector, the U.S. inability to supply significant quantities of FSC certified wood is a constraint. However as this market is focused primarily on supply of lower quality wood products, this constraint may not be of great significance to U.S. suppliers focusing on higher value niche markets. Probably of more significance to U.S. suppliers are demands for certified products emanating from large builders merchants, from construction companies, or from the public sector. At present two leading construction companies are members of the WWF Buyers Group (John Laing and Tarmac). Other members include Meyer International, the UK's largest timber importing company and a significant player in the UK builders' merchant sector, and Timbmet, the UK's largest hardwood importing company. Meyer International have set a target to ensure that 80 percent of their wood purchases are FSC certified within 5 years. Furthermore, both the World Wide Fund for Nature and the Timber Trade Federation's Forests Forever campaign continue to be active in raising awareness of environmental issues and forest certification among architects and local authorities.

While rising demand for FSC certification in the construction sector may be a constraint for many U.S. suppliers, increasing interest in environmental certification also offers new opportunities. U.S. exporters are well placed to benefit from their long history of sound forest management, and from the presence of existing initiatives including the AF&PA's Sustainable Forestry Initiative and the American Tree Farm System. On-going efforts to establish mutual recognition between these and other certification schemes, such as the PEFC, should increase acceptance of U.S. sustainability approaches in the UK market.

3.1.3 Policy

A number of policy measures constrain UK imports of U.S. products:

Import duties

Import duties for panel products from the U.S. to the UK, at 7 percent for most items, remain an impediment despite a duty free quota for softwood plywood of 650,000 m3 for the whole of the European Union. While the EU quota also applies to competing Brazilian plywood producers, the latter are able to switch to GSP quotas when the EU quota is exhausted. U.S. trade negotiators are aware of this discrepancy.

Technical standards and CE Marking

The need to comply with UK and European Standards is no longer a significant constraint for many U.S. wood products. For example, all U.S. softwood grades were accepted under BS EN standards during 1998. Lack of inclusion of U.S. hardwoods in standards covering timber for structural use are now being addressed. However U.S. hardwoods are still not fully covered under BS/EN standards for durability. Also several EU standards have been approved which exclude or restrict U.S. structural panels in their current format. For example the minimum moisture content requirements for OSB under EN300 have been cost prohibitive for U.S. suppliers.

Plant health regulations

U.S. shippers are required to kiln dry softwood prior to shipment under UK Plant Health legislation. This is mandatory even for those applications where kiln dried material is not required on technical grounds. Plant health regulations also apply to oak logs and lumber imported into the United Kingdom to protect against oak wilt disease. Oak logs cannot be imported in-bark and must be fumigated. Oak lumber must either be kiln dried or fumigated. The American Plant Health Inspection Service (APHIS) is responsible for certifying U.S. oak as in compliance with these requirements. Plant Health regulations therefore add to U.S. costs vis-à-vis European competitors.

3.2 Furniture Sector

3.2.1 Overview

Structure and size of the sector

The UK furniture industry is a large, mature industry which makes a significant contribution to the economy. With annual manufacturer sales of around £6 billion, the home market has in the past been well served by domestic producers with imports traditionally accounting for about 25 percent, although this situation is changing. Exports have not been a major component of the sector and have generally been lower than imports with a resulting trade gap of about £680 million in 1998. It is estimated that there are about 7700 registered enterprises engaged in furniture manufacture employing almost 120 000 people. 75 percent of these manufacturers are small companies operating with less than 9 people and only 300 companies account for about 45 percent of employment in the industry. The industry is dominated by small to medium sized enterprises (SMEs) with only 4 percent of companies reporting turnovers of more than £5 million. The high number of SMEs involved in the sector has meant that competition is often intense. To counter this tendency many operations have concentrated on high quality production. Although there are still companies making lower grade furniture with less regard for design, quality and service, this sector is coming under intense pressure from imports.

The industry is traditionally segmented into three primary sectors:

- Domestic: serving the public through retail outlets. Total production of this sector reached £3.5 billion in 1998. Upholstered furniture is the largest segment with total production approaching £1.2 billion in 1998, followed by kitchens (£830 million in 1998).

- Office: total production reached £751 million in 1998. About half the production comprised desks,

tables and system furniture. The remaining half of the market is dominated by seating, followed by steel storage.

- Contract: comprising furniture for public areas such as hotels and airports. There are no available statistics that relate specifically to the contract sector. It is generally accepted that the published figures for both domestic and office furniture include a significant contract element. However, the British Furniture Manufacturers estimate that in 1998, the contract furniture sector accounted for production of at least £1.74 billion over and above that included within the figures for domestic and office furniture.

Note that although the 1998 figures for UK production are the most recent made publicly available by the British Furniture Manufacturers Association, they should be treated with caution as penetration into the market by cheaper imports has increased substantially over the last three years. Also, the growth in the value sales during the period 1996 to 1998 is explained largely by inflation and the overall market remained relatively stable.

Furniture sector performance

Demand for furniture in the UK has been volatile over recent years. In 1998, UK furniture demand was hit by rising interest rates, an over-valued pound, and concern over the world economy. At that time, UK manufacturers began to come under increased pressure from low priced imported goods. Economic conditions improved in 1999 and 2000, and an upturn in home buying coupled with an increase in disposable income as the government eased restrictive fiscal policies led to improved demand for furniture during this period. The UK furniture sector also benefitted from a significant increase in exports, mainly thanks to strong demand from the United States.

Performance during 2001 was more mixed. Mounting economic uncertainty meant that furniture sales were relatively slow in the first half of the year. However there was an upturn during July and August as consumers took advantage of low priced promotional offers. Sales slowed again during September with the end of the summer sales, perhaps also a response to heightened economic uncertainty following the terrorist attacks in the United States. However more recent evidence from the high street, provided by the Confederation of British Industries' monthly poll of retailers, indicates that furniture sales rallied during October and November. Confirmation of strong demand growth in the approach to Christmas is provided by the British Retail Consortium which reported strong sales for large items of household furniture during November, with modern styles more popular than traditional designs.

Against this background of patchy sales during 2001, figures for actual furniture production were mixed. The most recently available figures for the year to July indicate that total output of kitchen furniture for home and overseas markets grew 4.6 percent, but chairs and seats fell 1.4 percent, office and shop furniture fell 0.8 percent, and other furniture fell 1.3 percent.

Prospects for furniture demand in the United Kingdom during 2002 seem reasonably good. Reduced interest rates have tended to increase the disposable incomes of families. The fact that consumers remain sufficiently confident to keep borrowing (consumer credit is rising at an annual rate of 12.9 percent and mortgage lending at 9.8 percent) suggests that they will also keep spending sufficiently to ensure that retail

sales remain buoyant. The resilience of the housing market and of new house building, despite the recent economic slowdown, also suggest that there will continue to be good demand in the domestic furniture sector during 2002. Although the pace of growth in office development has declined, it remains reasonably high, a factor which should contribute to reasonable sales of office furniture. However it is important to emphasize that the market is extremely volatile and that spending on furniture is prone to significant fluctuations.

Consumption of wood in the UK furniture sector

Recent data on volumes of wood used in the furniture sector are not available. However, an extensive end use survey by TRADA estimated that in 1995 the UK furniture sector absorbed around 160,000 m3 of sawn softwood, 190,000 m3 of sawn hardwood, and 1.8 million m3 of panel products. The furniture sector accounted for 24 percent of UK sawn hardwood consumption, 36 percent of UK panel products consumption, and 2 percent of UK sawn softwood consumption.

Significance of UK furniture sector to U.S. exporters

The UK furniture market is significant to U.S. exporters for two reasons:

- First, the UK has a relatively large domestic furniture manufacturing sector. The UK's domestic forests are unable to supply significant volumes of furniture quality wood. The sector therefore absorbs large volumes of imported lumber and veneer. A wide range of U.S. hardwoods are used for the manufacture of furniture in the UK, notably cherry, maple, oak, and ash. The UK is an important market for U.S. hardwood veneer, absorbing around 10,000 m3 per annum. The U.S. is the largest supplier of hardwood veneer to the UK. Small volumes of higher quality U.S. softwoods are also used in the furniture sector.

- Second, the UK has provided an expanding market for U.S. furniture. Overall exports of U.S. furniture to the UK have increased significantly over recent years, from US$121 million in 1996 to around US$160 million in 1999.

3.2.2 Furniture Trade

Improvements in efficiency and productivity have allowed UK manufacturers to increase furniture exports over recent years. Exports of wooden furniture increased by 3 percent between 1999 and 2000, and the trend towards rising exports continued into 2001. The United States is by far the largest export market accounting for around one third of total exports from the UK by value. UK exports of wooden furniture to the United States increased by nearly 16 percent between 1999 and 2000. However the growth in sales to the United States slowed during 2001 as the economic climate cooled.

Table 7: UK trade in wooden furniture (million Euro)

	1999	2000	2000	2001	percent
	Year	Year	Jan-Jun	Jan-Jun	change
Exports					

USA	203.9	235.9	112.1	113.3	1.1
Irish Republic	138.9	133	63.1	72.3	14.6
France	55.4	45.2	30	33.3	10.8
Germany	36.1	38	21.3	18	-15.6
Netherlands	34.1	36.6	20.7	15.9	-23.5
Japan	20.2	23.6	10.3	10.9	5.9
Belgium	12.9	19.9	8.8	8.6	-2.8
Italy	11.5	12.7	6.6	6.4	-3.5
Spain	12	11.2	6	6.3	5.2
Switzerland	10.5	11.4	5.8	6.1	6
Sweden	12.1	11	6.6	4.6	-30.3
Hong Kong	10.5	5.9	2.3	4.4	90.1
Denmark	8.1	8.2	3.8	3.3	-13.2
Norway	10.1	8.7	4.9	3.2	-34.2
Other	93.3	88.6	41.4	42.6	3
TOTAL	669.7	690	343.7	349.1	1.6
	1999	2000	2000	2001	percent
	Year	Year	Jan-Jun	Jan-Jun	change
Imports					
Italy	349.4	411.6	193.7	236.8	22.2
China	80	136.2	67.3	79.2	17.8
Denmark	88.4	115.2	54.8	63.5	15.8
Malaysia	92.5	138.2	70.5	61.9	-12.2
Belgium	86.7	99.6	54.3	61.9	14.1
Germany	84.4	108.6	46.3	61	31.7
Poland	49.2	87.2	38.3	53.6	39.9
Indonesia	71.4	92.4	51.4	49.3	-4
France	47	62.2	29	33.1	14.1
South Africa	50.7	56.3	31.1	31.5	1.2
Sweden	54.6	57.1	28.3	31	9.6
Vietnam	31.9	48.3	30.6	29.9	-2.3
USA	50.9	58.3	27.8	27.5	-1.1
Brazil	34	47.5	23.7	25.6	8.3
Thailand	29.2	43.7	18.3	23.3	27.6
Taiwan	44.9	51.1	27.4	18.2	-33.5
Irish Republic	36.7	33.9	17.8	17.5	-1.6

Other	267.1	338.1	157.7	198.5	25.9
TOTAL	1549	1985.5	968.5	1103.6	14
Trade balance	-879.3	-1295.5	-624.8	-754.5	20.8

The benefits to UK manufacturers resulting from rising exports and reasonably good domestic furniture consumption are being offset by increased levels of competition at home from imported products. In fact the UK's trade deficit in wooden furniture has been increasing rapidly in recent years. This trend has been driven by increased furniture production in low wage countries, notably China, Malaysia, Poland and Indonesia, and also by the relative strength of Sterling. Furthermore, as furniture demand in other parts of the world has weakened, overseas manufacturers have looked increasingly to the UK as an outlet for their products. This factor, coupled with the weakness of the Euro, explains significant increases in UK furniture imports from Euro-zone countries, notably Italy, Belgium and Denmark during 2001. UK imports of wooden furniture from the United States increased by around 15 percent between 1999 and 2000. Imports from the United States during 2001 continued at similar levels to the previous year.

In the short to medium term, competitive pressure from abroad may ease for UK manufacturers due to weakening in the value of Sterling, a trend which may follow from the recent relaxation of interest rates, or strengthening in the Euro exchange rate. However, as globalization trends intensify, it seems inevitable that UK furniture imports from low wage countries will continue to expand. UK manufacturers will be increasingly forced to focus on high value and high quality niche markets. Production of lower end furniture is declining steeply in the UK. Many furniture operations at this end of the market in the UK are now little more than assembly plants fitting together components produced in other parts of the world.

3.2.3 Marketing

Through competitive pricing, the development of efficient distribution systems, and professional marketing, U.S. exporters have assumed a leading position as suppliers of quality lumber to the UK furniture and interiors sector. Marketing constraints and opportunities for U.S. exporters are discussed below.

Third party competition

Third party competition inevitably creates challenges for U.S. suppliers to the UK furniture sector. Competition derives from three major sources:

- European hardwoods – European beech, oak and ash, primarily from France and Germany, have long competed with U.S. hardwoods in the furniture sector. Their impact has tended to be limited by lack of effective marketing, fragmented ownership, and inadequate distribution mechanisms. However, during 2000 and 2001, the weakness of the Euro has ensured that prices of Western European hardwoods have been particularly competitive. There are continuing signs that UK manufacturers are using increasing volumes of "rustic" grade European (mainly French) oak. Furthermore, UK manufacturers are showing growing interest in Eastern European hardwoods, which are of high quality and price competitive. Recent inward investment into Eastern Europe by foreign firms will tend to increase competition.

- Canada – Canadian suppliers continue to sell good volumes of hardwood, often of U.S. origin, to the United Kingdom. The trend partly reflects savings on freight due to differing weight restrictions for shipments from Canada and the lower costs of kilning in Canada than in the U.S. due to lower energy costs. Canadian hardwood shippers have traditionally been more focused on exports than their U.S. counter-parts, and as a result are often more responsive to overseas customer needs. Canadian shippers are reputed to be willing to follow suppliers' specifications to the letter. They will cut to European specifications when required; U.S. shippers tend only to supply U.S. specifications.

- Tropical hardwoods – environmental concerns, coupled with supply constraints, uncompetitive pricing for some species, and a fashion away from darker colors undermined the competitive position of tropical hardwoods during the 1990s. Tropical woods are therefore less of a threat in this sector than other temperate hardwood suppliers. Plantation grown rubberwood derived primarily from Malaysia saw significant expansion of market share between 1998 and 2000, but seems to have lost ground during 2001. However longer term moves to expand plantation production in the tropics, where growth rates are high and labor costs low, may create new market challenges for U.S. hardwoods.

Market segments

Continuing good demand for furniture in the UK during 2002 should provide opportunities for U.S. exporters over the next 12 months. A number of particular areas of growth are anticipated:

- Reasonable levels of new residential construction and house sales, coupled with low interest rates and the apparent willingness of consumers to continue to borrow, should create good demand for domestic furniture during 2002.
- demand for wooden garden furniture in the UK continues to improve, making particular inroads into plastic.
- improving infra-structure in the education and health sectors is expected to be a major thrust of government expenditure during 2002, and there may be new opportunities to supply lower cost furniture to these sectors.
- although the pace of growth in new office and office refurbishment projects slowed during 2001, activity remains high. Sales of office furniture should therefore remain steady.

Changing structure of the UK furniture market and supply chain

The changing structure of the UK furniture sector will inevitably create new constraints and opportunities for American wood products. The continuing loss of capacity as manufacturers shift to lower cost locations will tend to undermine the overall size of the lumber market. The emphasis on production efficiency and cost-cutting will also continue to drive a shift away from solid lumber in favor of panel products with a thin covering of veneer. The increased availability of cheap wood panels is intensifying this trend. While undermining sales of American lumber, this trend continues to create opportunities for the supply of hardwood veneers.

The drive to improve efficiency has led to a reduction in purchases of rough sawn lumber in favor of dimension and semi-finished components. Furniture manufactures are increasingly outsourcing components rather than manufacturing themselves. There are several reasons including improved control over costs,

insurance of quality, reduced capital investment, lower cost of production outside the UK, and savings on transportation (since waste is removed prior to shipping). U.S. exporters continue to exploit this trend, being better adapted than some of their competitors to produce and provide reliable shipments of high quality components. Growth of this market is expected to continue.

U.S. shippers have also had a geographical advantage over tropical producers in responding to growing consumer demand for Just in Time ordering. Initially seen as a response to volatile trading conditions, JIT trading is now well established as normal business practice in the UK. U.S. importers have been able to exploit advantages presented by shorter and more efficient shipping. They have also created new opportunities through the establishment of concentration yards in Europe.

Product trends

The fashion for relatively lightly grained and lighter colored hardwoods continued in the furniture sector during 2001. Species which have been in favor include American white oak, American hard maple, and American black cherry. Birch has also become increasingly fashionable, benefitting particularly from widespread exposure by large retailers, notably IKEA. "Darker" light colored species have also been favored, a trend which has benefitted American walnut in the UK, but has also created new opportunities for competitors such as plantation teak.

The American Hardwood Export Council have highlighted the potential for increased use of lower grade and "character" wood in the UK furniture sector. Evidence continues to mount that UK and European manufacturers are beginning to exploit growing interest in character wood. The trend is particularly noticeable in the flooring sector with growing interest in character and "rustic" grades.

Price issues

Despite the recession in American domestic demand, prices for some species of American hardwood, notably the higher grades of cherry, remained at high levels during 2001. The remarkable stability of American hardwood prices during the year reflected a very rapid decline in production. American hardwoods continue to be perceived in the UK as relatively high cost, particularly by comparison with European hardwoods, which have benefitted from the weakness of the Euro. Prices for European beech have also been weak due to over-stocking.

However, it is debatable whether the relatively high cost of American woods is a major constraint in the furniture sector. A manufacturer's choice of species of solid lumber for furniture production is usually based less on price and more on technical and aesthetic concerns. Price usually becomes an issue only after the initial choice of species has been made, when there may be intense competition between suppliers of the same species. Solid lumber supplied to the furniture sector is generally not perceived as a commodity and is sold as a high value product. This perception is becoming more pronounced as raw material costs are generally becoming less significant in the overall cost structure of the furniture sector relative to the costs of labor, capital and marketing. This factor has been particularly beneficial for American hardwoods which, while perceived to be relatively expensive, offer numerous advantages in terms of variety and attractiveness of appearance, reliable grading and consistency of product, and long-term reliability of supply.

The downside of the "species first, price second" purchasing policy of furniture manufacturers is that, once

the industry has become tied into producing and marketing a range of products based on the look and feel of a particular species, it may be difficult to introduce more commonly available, even cheaper, substitutes. Substitution trends in the furniture industry tend to be limited and are slow to take effect. Hence the process of trying to substitute lesser-used American species, or new "character grades", in place of high quality traditional species, is necessarily a long-term process.

End user awareness

Lack of end user awareness of the quality, range and potential application of U.S. wood products in the furniture sector remains a constraint. For example, despite strong UK demand for pine furniture, notably from Scandinavia, there continues to be resistance to furniture manufactured from U.S. softwood species. In the hardwood sector, the marketing efforts of AHEC and others have generated greater interest in the full range of U.S. species. There have been some notable successes, for example the use of tulipwood has become more widespread. However, for the reasons identified above, many manufacturers continue to focus very heavily on species with which they are familiar. Generating demand for new species and grades will require a long term commitment to raising end-user awareness.

Mill cutting tolerances

As quality and efficiency have become increasingly significant to the UK furniture industry, the ability of suppliers to produce wood to precise size specifications has become more important. Some U.S. mills are responding effectively to this trend, through inward investment in new high tech equipment. However, many smaller U.S. hardwood mills are unable to cut to the size tolerances required and will be losing market share as a result. Unlike U.S. producers, many European mills have traditionally had a "custom" approach, producing wood to very specific sizes for their buyers, and have readily adapted to the new demands. Many competing French mills, for example, are already able to cut to very low tolerances. Many Malaysian mills have also specialized in the supply of lumber in custom sizes to the European market.

Environmental certification

With a few notable exceptions, demand for environmental certification in the UK furniture sector has been subdued so far and still tends to focus more heavily on tropical than on temperate hardwoods. The exceptions include garden furniture, an increasing volume of which is supplied through the largest DIY chains, and lower value mass market products sold through large retail chains such as IKEA. However the increasing significance of these large chains in the supply of furniture in the UK suggest that demand may increase in the future. Comments relating to opportunities and constraints of environmental certification in the construction sector therefore also apply to the furniture sector.

3.2.4 Policy

There is no intervention by UK regional or national authorities in the supply of imported wood for the furniture sector, other than the plant health regulations impacting on softwood and some hardwood species (e.g. oak). Another minor exception is the resistance amongst publicly funded bodies to purchases of Brazilian mahogany furniture following intense environmentalist campaigning.

The EU imposes tariffs on veneers of between 3 percent and 6 percent depending on species. These tariffs give EU suppliers, and some tropical countries eligible for GSP, an edge over U.S. suppliers.

3.3 Materials Handling Industry

3.3.1 Overview, marketing and trade

Pallets

Most wood used in the pallet sector in the UK is low-grade softwood, of which a significant proportion derives from the UK and Europe, notably the Baltic States. Low-grade plywood is only occasionally used for pallets. Other materials have negligible market share. Recycling is well established in the sector and a high percentage are recovered and reused. The introduction of far-reaching packaging waste regulations in 1997 have increased pressure to re-use and recycle pallets. Opportunities for U.S. wood producers in the sector are extremely restricted due to transport costs and limited price competitiveness.

Other packaging

In other packaging sectors, including crate manufacture, small quantities of U.S. plywood have been used in the past. However the strength of the dollar, coupled with increasing domestic and European production of substitutes like OSB, have further restricted opportunities for U.S. products in the sector.

Demand

Following a poor trading year in 2000, market conditions for pallets and packaging materials have continued to be difficult during 2001. Widespread gloom in the pallet sector has resulted from a combination of low prices, higher costs (notably for transport) and a lack of available orders. Overcapacity in UK and European pallet manufacturing sector has led to intense competition, with price pressure being exerted at both the raw material and manufactured product. Prospects in 2002 are also poor.

3.3.2 Policy

The Commission of the European Communities has adopted emergency measures requiring treatment and marking of all new and used coniferous (e.g. pine, spruce, fir) non-manufactured wood packing material (e.g. pallets, boxes, crates) originating in the United States, Canada, China, or Japan beginning October 1, 2001 to prevent the introduction of pinewood nematode. European concern over the possible introduction of the pinewood nematode has increased over the last couple of years after an outbreak in Portugal which is widely attributed to packaging material. The United States, through the USDA's Animal Plant Health Inspection Service (APHIS), has set up a program to meet the measures adopted by the EU which requires heat treatment or kiln dried mitigation to eliminate the pest on non-manufactured wood packing material.

Although the EU measures officially apply only to softwood, the controls may also be applied to hardwoods since the International Protection Convention, which is recognized by the World Trade Organization as the official plant protection body, will likely adopt measures very similar to those of the EU in April 2002 for all non-manufactured wood packing material, both softwoods and hardwoods.

In addition to these measures specifically relating to packing material, comments under construction and furniture relating to phyto-sanitary requirements for U.S. softwood lumber, and import duties on U.S. plywood equally apply to the materials' handling sector. There is very little interest in environmental

certification in the sector.

Exchange Rates:

Please note that the exchange rates used throughout this report are as follows:

£1 = $ 1.445

$1 = 1.158 Euro

PSD Tables

PSD Table						
Country	United Kingdom					
Commodity	Hardwood Plywood				1000 CUBIC METERS	
	Revised	2000	Preliminary	2001	Forecast	2002
	Old	New	Old	New	Old	New
Market Year Begin		01/2000		01/2001		01/2002
Production	0	0	0	0	0	0
Imports	560	664	540	700	0	675
TOTAL SUPPLY	560	664	540	700	0	675
Exports	6	6	6	6	0	6
Domestic Consumption	554	658	534	694	0	669
TOTAL DISTRIBUTION	560	664	540	700	0	675

On all PSD tables "Old" column reflects FAS/Washington data.

PSD Table						
Country	United Kingdom					
Commodity	Tropical Hardwood Lumber				1000 CUBIC METERS	
	Revised	2000	Preliminary	2001	Forecast	2002
	Old	New	Old	New	Old	New
Market Year Begin		01/2000		01/2001		01/2002
Production	5	5	5	5	0	5
Imports	165	198	160	176	0	175
TOTAL SUPPLY	170	203	165	181	0	180
Exports	0	0	0	0	0	0
Domestic Consumption	170	203	165	181	0	180
TOTAL DISTRIBUTION	170	203	165	181	0	180

PSD Table						
Country	United Kingdom					

Commodity	Temperate Hardwood Lumber				1000 CUBIC METERS	
	Revised	2000	Preliminary	2001	Forecast	2002
	Old	New	Old	New	Old	New
Market Year Begin		01/2000		01/2001		01/2002
Production	145	107	145	107	0	107
Imports	285	245	280	245	0	245
TOTAL SUPPLY	430	352	425	352	0	352
Exports	8	8	8	8	0	8
Domestic Consumption	422	344	417	344	0	344
TOTAL DISTRIBUTION	430	352	425	352	0	352

PSD Table						
Country	United Kingdom					
Commodity	Hardwood Veneer				1000 CUBIC METERS	
	Revised	2000	Preliminary	2001	Forecast	2002
	Old	New	Old	New	Old	New
Market Year Begin		01/2000		01/2001		01/2002
Production	3	3	3	3	0	3
Imports	32	31	32	45	0	47
TOTAL SUPPLY	35	34	35	48	0	50
Exports	11	11	11	11	0	11
Domestic Consumption	24	23	24	37	0	39
TOTAL DISTRIBUTION	35	34	35	48	0	50

PSD Table						
Country	United Kingdom					

Commodity	Softwood Plywood				1000 CUBIC METERS	
	Revised	2000	Preliminary	2001	Forecast	2002
	Old	New	Old	New	Old	New
Market Year Begin		01/2000		01/2001		01/2002
Production	0	0	0	0	0	0
Imports	580	547	580	612	0	600
TOTAL SUPPLY	580	547	580	612	0	600
Exports	15	15	15	15	0	15
Domestic Consumption	565	532	565	597	0	585
TOTAL DISTRIBUTION	580	547	580	612	0	600

PSD Table						
Country	United Kingdom					
Commodity	Softwood Lumber				1000 CUBIC METERS	
	Revised	2000	Preliminary	2001	Forecast	2002
	Old	New	Old	New	Old	New
Market Year Begin		01/2000		01/2001		01/2002
Production	2295	2160	2324	2160	0	2200
Imports	7300	7460	7100	7402	0	7471
TOTAL SUPPLY	9595	9620	9424	9562	0	9671
Exports	130	130	130	130	0	130
Domestic Consumption	9465	9490	9294	9432	0	9541
TOTAL DISTRIBUTION	9595	9620	9424	9562	0	9671

Trade Tables

Export Trade Matrix			
Country	United Kingdom		
Commodity	Hardwood Plywood		
Time period	Year	Units:	000 cubic meters
Exports for:	2000		2001
U.S.	0	U.S.	0
Others		Others	
EU	6	EU	6
Total for Others	6		6
Others not Listed	0		0
Grand Total	6		6

Import Trade Matrix			
Country	United Kingdom		
Commodity	Hardwood Plywood		
Time period	Year	Units:	000 cubic meters
Imports for:	2000		2001
U.S.	4	U.S.	8

Others		Others	
Indonesia	203	Indonesia	230
Brazil	113	Brazil	190
Malaysia	84	Malaysia	60
Russia	73	Russia	50
Finland	35	Germany	40
Germany	21	Finland	35
Latvia	19	Lativa	14
Belgium	17	Lithuania	14
Burma	17	Belgium	10
Guyana	16	Guyana	7
Total for Others	598		650
Others not Listed	62		42
Grand Total	664		700

Export Trade Matrix			
Country	United Kingdom		
Commodity	Tropical Hardwood Lumber		
Time period	Year	Units:	000 cubic meters
Exports for:	2000		2001
U.S.	0	U.S.	0
Others	0	Others	0
Total for Others	0		0

Others not Listed	0		0
Grand Total	0		0

Import Trade Matrix			
Country	United Kingdom		
Commodity	Tropical Hardwood Lumber		
Time period	Year	Units:	000 cubic meters
Imports for:	2000		2001
U.S.	5	U.S.	1
Others		Others	
Malaysia	63	Malaysia	44
Cameroon	40	Cameroon	34
Ivory Coast	21	Netherlands	20
Ghana	18	Ghana	16
Netherlands	15	Ivory Coast	16
Brazil	9	Brazil	15
Indonesia	6	Germany	6
Germany	4	Indonesia	4
Total for Others	176		155
Others not Listed	17		20
Grand Total	198		176

Export Trade Matrix			
Country	United Kingdom		
Commodity	Temperate Hardwood Lumber		
Time period	Year	Units:	000 cubic meters
Exports for:	2000		2001

U.S.	0	U.S.	0
Others		Others	
EU	5	EU	5
Total for Others	5		5
Others not Listed	3		3
Grand Total	8		8

Import Trade Matrix			
Country	United Kingdom		
Commodity	Temperate Hardwood Lumber		
Time period	Year	Units:	000 cubic meters
Imports for:	2000		2001
U.S.	115	U.S.	110
Others		Others	
Germany	42	Germany	42
Canada	33	Canada	32
France	20	France	18
Sweden	12	Sweden	12
Russia	3	Russia	5
Romania	1	Romania	4

Total for Others	111		113
Others not Listed	19		22
Grand Total	245		245

Export Trade Matrix			
Country	United Kingdom		
Commodity	Hardwood Veneer		
Time period	Year	Units:	000 cubic meters
Exports for:	2000		2001
U.S.	0	U.S.	0
Others		Others	
EU	8	EU	8
Total for Others	8		8
Others not Listed	3		3
Grand Total	11		11

Import Trade Matrix			
Country	United Kingdom		
Commodity	Hardwood Veneer		
Time period	Year	Units:	000 cubic meters

Imports for:	2000		2001
U.S.	10	U.S.	8
Others		Others	
Germany	7	South Africa	6
Ghana	3	Switzerland	6
South Africa	3	Germany	4
France	2	Ghana	2
Belgium	2	Canada	2
Canada	1	China	2
Zaire	0	France	2
Switzerland	0	Belgium	2
China	0		
Total for Others	18		26
Others not Listed	3		11
Grand Total	31		45

Export Trade Matrix			
Country	United Kingdom		
Commodity	Softwood Plywood		
Time period	Year	Units:	000 cubic meters
Exports for:	2000		2001
U.S.	0	U.S.	0
Others		Others	
EU	15	EU	15

Total for Others	15		15
Others not Listed	0		0
Grand Total	15		15

Import Trade Matrix			
Country	United Kingdom		
Commodity	Softwood Plywood		
Time period	Year	Units:	000 cubic meters
Imports for:	2000		2001
U.S.	36	U.S.	40
Others		Others	
Brazil	291	Brazil	350
Finland	40	Finland	38
Canada	35	Canada	35
Indonesia	24	Indonesia	25
Latvia	20	Chile	18
Russia	18	Latvia	18
France	12	France	12
Chile	11	Russia	10
South Korea	8	Sweden	10
Thailand	8	Malaysia	8
Total for Others	467		524
Others not Listed	44		48
Grand Total	547		612

Export Trade Matrix			
Country	United Kingdom		

Commodity	Softwood Lumber		
Time period	Year	Units:	000 cubic meters
Exports for:	2000		2001
U.S.	0	U.S.	0
Others		Others	
Irish Republic	80	Irish Republic	80
Other EU	20	Other EU	20
Total for Others	100		100
Others not Listed	30		30
Grand Total	130		130

Import Trade Matrix			
Country	United Kingdom		
Commodity	Softwood Lumber		
Time period	Year	Units:	000 cubic meters
Imports for:	2000		2001
U.S.	52	U.S.	48
Others		Others	
Sweden	2500	Sweden	2491
Latvia	1752	Latvia	1784
Finland	1390	Finland	1440
Russia	548	Russia	529
Estonia	291	Estonia	348

Canada	244	Irish Republic	200
Irish Republic	180	Canada	172
Norway	118	Norway	100
Lithuania	80	Lithuania	84
Total for Others	7103		7148
Others not Listed	305		206
Grand Total	7460		7402